

DOCUMENT RESUME

ED 088 966

UD 014 087

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TITLE Use of a Diagnostic Instrument to Gauge Pupil Growth:
W.J. Scott Elementary School, 1972-73. Research and
Development Report, Volume 7, Number 13, October,
1973.
INSTITUTION Atlanta Public Schools, Ga.
PUB DATE Oct 73
NOTE 48p.
EDRS PRICE MF-\$0.75 HC-\$1.85
DESCRIPTORS Academic Achievement; *Elementary Schools;
Kindergarten Children; Paraprofessional School
Personnel; *Program Evaluation; Reading Programs;
Secondary Education; *Special Education; Student
Grouping; *Urban Schools
IDENTIFIERS Career Opportunities Program; Comprehensive
Instructional Program; Elementary Secondary Education
Act Title I; ESEA Title I Programs; *Georgia

ABSTRACT

W. J. Scott Elementary School received local and Federal funds for compensatory programs during the 1972-73 school year. The purpose of this report is to evaluate the compensatory programs as they were implemented in the school and to analyze possible benefits to the general school program in terms of the goals and objectives defined by the faculty. Results of standardized tests administered throughout the school were observed to denote the general standing of all pupils and to relate achievement to past performance, expected performance, and per pupil expenditures. The primary focus of the educational program at Scott Elementary was on the teaching of reading. This emphasis was shared by the special programs, including the Comprehensive Instructional Program, Title I, Elementary Secondary Education Act, and the Career Opportunities Program. Enrollment at Scott in the beginning of the school year was 593 pupils in kindergarten through the seventh grade. A new addition to the school in 1971 added cluster classrooms to the self-contained units. Use of the clusters by various grade levels shifts from year to year as determined by the needs of the pupils. A special class for the multihandicapped was also in its second year of operation this year. In all there were 12 self-contained classrooms and two cluster classrooms plus a class for the deaf, a class for the multihandicapped, a class for the educable mentally retarded, and a morning and afternoon kindergarten. (Author/JM)

ED 088966

RESEARCH AND DEVELOPMENT REPORT

VOL. VII, NO. 13

October, 1973

USE OF A DIAGNOSTIC INSTRUMENT TO GAUGE PUPIL GROWTH

W. J. SCOTT ELEMENTARY SCHOOL

1972-73

Birdie Robinson
Principal

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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UD 014087

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I. RATIONALE

W. J. Scott Elementary School received local and federal funds for compensatory programs during the 1972-73 school year. Receipt of the funds was contingent on the poor reading achievement of many of the pupils and the low-income status of their families. Use of the funds was outlined in the grant proposal where behavioral objectives for the participants were also clearly stated. The purpose of this report is to evaluate the compensatory programs as they were implemented in the school and to analyze possible benefits to the general school program in terms of the goals and objectives defined by the faculty. Results of standardized tests administered throughout the school were observed to denote the general standing of all pupils and to relate achievement to past performance, expected performance, and per pupil expenditures.

II. INTRODUCTION

The Scott Elementary School community is located in the northwest section of the city and is bounded on the north by Bolton Road, on the south by Magnolia Cemetery, on the west by Jackson Parkway and on the east by the Georgia Power Transmission Line and Mary George Avenue. Available housing consists mainly of federally-and privately-owned low-rent apartments, including Hollywood Courts, Butler "Y" Village, and Flipper Temple Apartments. Less than ten per cent of the pupil population live in single-family dwellings.

Approximately fifty-nine per cent of the pupils came from families whose incomes were \$7,000 or less. Another ten per cent of the pupils' families had incomes between \$2,000 and \$3,000. Eighty-five per cent of the enrollment qualified for free or reduced-price lunches. Coupled with low achievement in reading and poor self-image, the financial status of the children's families made the school eligible to receive Title I funds in 1972-73 as they had received them in previous years. Use of the funds was directed toward the improvement of reading skills of the most educationally deprived pupils as directed by Title I guidelines.

Enrollment at Scott in the beginning of the school year was 593 pupils in kindergarten through the seventh grade. The number of Caucasian pupils decreased by more than half over last year so that this year there were six white pupils in an

otherwise all black pupil population. Migration of pupils into and out of the school had been quite frequent, causing mobility indices of .31 and .44 for the past two years. The index of 1972-73 remained high, but did not exceed that of the previous year. Attendance has averaged around 90 per cent for the entire school for the previous two years and remained at 90 per cent for 1972-73.

A new addition to the school in 1971 added cluster classrooms to the self-contained units. Use of the clusters by various grade levels shifts from year to year as determined by the needs of the pupils. A special class for the multihandicapped was also in its second year of operation this year. In all there were twelve self-contained classrooms and two cluster classrooms plus a class for the deaf, a class for the multihandicapped, a class for the educable mentally retarded (EMR), and a morning and afternoon kindergarten.

The primary focus of the educational program at Scott Elementary was on the teaching of reading. This emphasis was shared by the special programs, including the Comprehensive Instructional Program, Title I, and the Career Opportunities Program. Since the standard achievement test scores in reading had averaged two or more years behind the norms, the emphasis was well placed. As the most important area of concern, reading also commanded the attention of the goals and objectives designed by the faculty for evaluation, especially in grades one, two, and three where basic skills must be acquired for future school success. Objectives were also defined for the fourth grade in order to follow all the pupils for whom objectives were written for 1971-72.

III. NEEDS

The following personal and academic needs of the pupils were identified by the faculty for the 1971-72 school prospectus. They were re-examined and supplemented as follows to receive continued attention and emphasis during the new school year (1972-73).

- A. Acquisition of basic reading skills, including readiness skills, word attack skills, and sight vocabulary.
- B. Development of communication skills, including listening, speaking, and writing skills.
- C. Application of reading skills for improved understanding about written materials.
- D. Acquisition of basic information and understanding about self-identification and concepts of time.
- E. Development of basic arithmetic skills.
- F. Enrichment experiences to broaden their cultural outlook and to enhance academic achievement.
- G. More positive feelings about self-worth.
- H. Parents who are more cognizant of and involved in their school activities.
- I. Improved diet and health care services.
- J. Improved school attendance habits.

IV. GOALS

The primary goal of Scott Elementary School continued to be in regard to the improvement of reading. The instructional program aimed to increase the children's reading capabilities by providing a reading program which was directed toward the development of skills in word attack, vocabulary, and comprehension. The primary goal was supported by the following additional goals which also guided the program of the previous year.

- A. To provide vicarious enrichment experiences for the children through movies, filmstrips, community resources, music and art.
- B. To enhance positive feelings about self-worth through successful learning experiences.
- C. To strengthen home-school relations by providing the opportunity and guidance for parents to organize and implement their own parent involvement program.
- D. To improve the overall percentage of attendance for the total pupil population.

V. BEHAVIORAL OBJECTIVES

The following objectives were determined to measure the success of the pupils under the general instructional program. Evaluation instruments were carefully examined so that realistic objectives could be set.

First Grade

- A. Those pupils in the top group will have completed subtests A1 through C2 of the Comprehensive Instructional Program (CIP) tests with 80 per cent accuracy by the final administration of the tests.
- B. Those pupils in the second group will have completed subtests A1 through C2 of the CIP tests with 60 per cent accuracy by the final administration of the tests.

Second Grade

- C. Seventy per cent of the pupils will have completed CIP subtests A1 through A8 with 90 per cent accuracy by the third administration of the tests.
- D. Eighty per cent of the pupils will have completed CIP subtests B1 through B4 with 90 per cent accuracy by the third administration of the tests.
- E. Fifty per cent of the pupils will have completed CIP subtests C1 through C10 with 85 per cent accuracy by the third administration of the tests.

Third Grade

- F. Ninety per cent of the low reading group will complete the following CIP subtests with the designated degree of accuracy:

<u>Subtests</u>	<u>Degree of Accuracy</u>
A1, A3, A4, A7, A8	100%
A2	70%
A5	50%
A6	80%
B1, B2	100%
B3	60%
B4	40%
C1, C3, C4	60%
C2	50%
C5	90%

- G. Ninety per cent of the middle reading group will complete the following CIP subtests with the designated degree of accuracy:

<u>Subtests</u>	<u>Degree of Accuracy</u>
A1, A3, A4, A5, A7, A8	100%
A2, A6	85%
B1, B2	100%
B3, B4	90%
C1, C2, C5	90%
C3, C6	75%
C4, C9	60%
C7, C8	50%
C10	70%

- H. Pupils in the top reading group will complete CIP subtests D1 through D2 with 75 per cent accuracy by the final administration of the test.

Fourth Grade

I. Low Reading Group

1. Pupils will demonstrate mastery of specific reading skills, particularly letter sounds and syllabication, by completing teacher-made exercises with 80 per cent accuracy.
2. Pupils will demonstrate mastery of rules in English usage, particularly capitalization, punctuation and contractions, by completing teacher-made exercises with 80 per cent accuracy.
3. Pupils will demonstrate understanding of concepts of time and money and mastery of addition and subtraction of three digit numbers by completing teacher-made exercises with 80 per cent accuracy.

J. Middle Reading Group

1. Pupils will be able to recognize and write basic facts of self-identification, including name, address, phone number, and parents' names.
2. Pupils will be able to recognize and write the letters of the alphabet, the numerals from one to one hundred, the days of the week, and the months of the year.
3. Pupils will be able to tell time and to record time on the face of a clock.
4. Eighty-seven per cent of the pupils will complete a teacher-made test of one, two and three digit addition and subtraction, simple multiplication, factoring and division problems with 70 per cent accuracy by the end of the school year.
5. Ninety per cent of the pupils will be able to recognize 95 per cent of the sight words on the Dolch Word List by the end of the school year.

K. Upper Level Reading Group

The pupils on each reading level will demonstrate their preparedness for the next level by completing the final developmental tests in word-learning and comprehension for their respective books with 60 per cent accuracy by April, 1973.

Title I

Objectives for Title I pupils as defined in the grant proposal are restated here as objectives accepted by the school.

- L. Pupils will show a gain of at least one month for each month in the activity in the following areas:
 - 1. Word Knowledge
 - 2. Word Analysis
 - 3. Reading.
- M. Pupils will demonstrate more positive attitudes than similar pupils who do not participate in the activity.
- N. Pupils will show improvement in self-concept. The desired change will be statistically significant at the .05 level.

Career Opportunities Program

Objectives were also defined within the grant proposal for pupils who were assisted by participants in the Career Opportunities Program (COP). In Scott Elementary School, COP participants were employed as aides under Title I. Objectives for COP that were evaluated within the school included the following:

- O. Given pupils from low-income communities taught by COP teams, the average pupil achievement will be increased by more than one grade level annually.
- P. Given pupils from low-income school communities taught by COP teams, the annual gains in pupil achievement will be significantly greater than the annual gains made by other pupils from similar low-income school communities who are taught in self-contained classrooms.

- Q. Given low-income area schools with COP teams and other low-income area schools without COP teams, the schools having COP teams will achieve significantly greater gains in pupil self-concepts annually than will the non-COP schools.
- R. Given low-income area schools with COP teams and other low-income area schools without COP teams, the schools having COP teams will annually achieve a greater number of organizational and operational changes than will the non-COP schools.

VI. CRITICAL VARIABLES

Variables in which the faculty of Scott desired to show change during 1972-73 were:

- A. Reading Readiness Skills.
- B. Reading Skills.
 - 1. Word knowledge
 - 2. Word analysis
 - 3. Comprehension.
- C. Language Usage Skills.
- D. Arithmetic Skills.
 - 1. Addition
 - 2. Subtraction
 - 3. Multiplication
 - 4. Factoring
 - 5. Division.
- E. Time Concepts .
 - 1. Telling time

2. Days of the week

3. Months of the year.

F. Attitude Toward School.

G. Self-Concept.

1. Facts of self-identification

2. Self-Image.

VII. SUPPORTIVE PROGRAMS

The supportive programs at Scott Elementary School complemented the regular school program by providing compensatory services in the areas already emphasized by the school.

Title I - Elementary and Secondary Education Act

The English Reading Program under Title I provided compensatory education for the most educationally deprived pupils in the school. The primary objective of this activity was to improve the reading competencies of the most deprived pupils through tutorial and/or individualized instruction. By improving academic performance, the program also aimed to enhance pupils' self-concepts and attitudes toward school. One hundred one pupils were selected from the lowest achieving one-third of the population as determined by scores on the reading subtest of the Metropolitan Achievement Tests. Through frequent administration of diagnostic instruments and continuous evaluation of daily performance, pupils participated in activities prescribed for their individual levels of reading achievement. This instruction was in addition to that provided by the regular school program.

The Title I program at Scott School was designed initially to be staffed by a lead teacher and four educational aides. The release of additional funds in December, 1972, allowed the assignment of a certified teacher to the program. However, the teacher was not assigned until April, 1973.

The responsibilities of the staff were well-defined within the grant proposal. The lead teacher under Title I coordinated the program, directed testing activities, assessed pupils strengths and weaknesses, and prescribed activities for each pupil's needs. Furthermore, she provided inservice training for teacher aides and for teachers of the most educationally deprived, directed parent involvement activities, and assisted pupils in problems related to poor attendance and poor social adjustment. Teacher aides assisted pupils in their prescribed activities, tutored small groups and individuals, worked with the classroom teachers of Title I pupils, and generally assisted the lead teacher in Title I activities. When the certified teacher was employed in April, the lead teacher determined her responsibilities according to the greatest needs of the pupils. Consequently, she provided instruction for those first and second grade Title I pupils in first through sixth grade who were the lowest in achievement and who exhibited the greatest nonverbal tendencies. By teaching them in very small groups, the staff hoped to provide them with more opportunities for verbalization and communication. An area coordinator under Title I served as a resource person to assist lead teachers in the administration of the program.

Title I pupils in the English-Reading Program were also eligible for free health and medical services, including eyeglasses and hearing aids. Vision and hearing screenings administered by the staff and parent volunteers yielded two referrals for vision defects but none for hearing defects. Although treatment was made available for both children, one child's parent was unsatisfied with the treatment, and the prescription for eyeglasses for the other child was delayed by the loss of the order. The child finally received the eyeglasses just before the close of the school year.

Four hundred fifty-four dollars and fifty cents was allocated to the program for materials and supplies. This money was used to purchase three levels of Rebus workbooks for beginning readers, the Target Red Reading Program, the Plus Four Booster, and Read On. Because the money was allocated on a quarterly basis, materials arrived from January until April, rendering them less useful than if they had been received at the beginning of the school year.

The Experience Approach to Reading Program under Title I was a youth-tutoring-youth program where seventh grade Title I pupils from a nearby elementary school served as tutors and "buddies" for the multihandicapped pupils at Scott School.

In addition to regular classroom tutoring, the tutors accompanied their tutees on a camping trip and incorporated these activities into learning experiences for themselves and the multihandicapped pupils.

Career Opportunities Program

The overall goal of the Career Opportunities Program (COP) was to "bring into the schools persons from low-income areas who would not normally enter college and who normally would not consider teaching as a career, and through them to better the education of children from economically disadvantaged families." To this end Atlanta Public Schools cooperated with three institutions of higher education to provide a training program for selected paraprofessionals, leading toward professional certification. Tuition was provided for the trainees, allowing them to earn up to 45 quarter hours of college credit during a twelve-month period and to receive practicum credit for classroom training. Additionally, COP participants, as Title I aides, received regular inservice training from a lead teacher. In the classroom, participants assisted with reading instruction, tutored individuals and small groups, and assisted the lead teacher in planning and evaluating pupils' activities.

Comprehensive Instructional Program

The Comprehensive Instructional Program (CIP) is a locally conceived and funded project designed to improve instruction in the elementary grades. Reading is the area of emphasis in the primary grades, while mathematics is focused upon in the upper grades. Diagnostic testing and inservice training are the primary methods of assistance that are offered. Limited funds are also available for reading and mathematics materials, excluding textbooks. A reading coordinator under CIP provides assistance to local school personnel in implementing and strengthening the established reading program through:

- A. Assisting teachers in selecting appropriate materials and utilizing new and old materials.
- B. Encouraging teachers to provide learning experiences for each child wherein success and accomplishment can be realized.
- C. Demonstrating teaching techniques.

- D. Encouraging teachers to provide for pupil experiences which foster decision-making, self-directiveness, and independence.
- E. Assisting teachers in providing for continuous assessment of pupil performance and growth through the effective use of CIP test results.

This year CIP funds were used to purchase a variety of equipment and materials. For use in the reading program four cassette recorders, a record player, and cards for the language master were purchased. Diagnostic kits for mathematics were also bought.

VIII. MANAGEMENT AND CONTROL

Administration

The Superintendent of the Atlanta Public Schools is appointed by the Board of Education and is authorized to administratively direct the instructional program of the school system. Under his direction, five area superintendents administer the programs of the schools of the five geographic areas which comprise the system. Six assistant superintendents supervise the six divisions of supportive services to the instructional program. These divisions are: (1) Research and Development, (2) Staff Personnel Services, (3) Instruction, (4) School Plant Planning and Construction, (5) Administrative Services, and (6) Comptroller.

The Assistant Superintendent for Research and Development and his staff are responsible for developing new programs, evaluating the effectiveness of program activities, and disseminating information.

The Assistant Superintendent for Staff Personnel Services and his staff are responsible for meeting the staffing needs of the instructional programs within the schools and the project activities.

Inservice training for teachers, staff development activities, and curriculum development are directed by the Assistant Superintendent for Instruction and his staff. Within this division, the directors and coordinators of federal, state, and local projects and various curriculum areas work with the staffs of other divisions, the area office, the principal, and teachers to implement programs and provide for the training needs of the school personnel.

Schools also have access to a number of services through the area office, including a psychologist, counselors, resource teachers, and coordinators for compensatory programs. The services of the Title I coordinator were somewhat restricted by his additional responsibility for the Comprehensive Instructional Program and his position as a general resource teacher.

At the local school level, the principal is responsible for the administrative aspects of the school program. Among the administrative responsibilities of the principal are the assignment of teachers to classes, conferring with the parents, involving the community, and the supervision of instructional and staff development activities.

Staffing and Instructional Organization

The regular staff at W. J. Scott Elementary School included the principal, twenty classroom teachers, a teacher of the multi-handicapped, a teacher of the deaf, a classroom teacher and a resource teacher of the educable mentally retarded, and a teacher for the Communication Skills Laboratory. One aide was employed under general funds to assist the teacher of the multihandicapped pupils. Except for the just mentioned assignment of teacher to special classes, teachers served the following grades: two kindergartens, three first grades, one cluster of second and third grade pupils, two self-contained third grades, two fourth grades, two fifth grades, one sixth grade, one combination of fourth and fifth grade pupils, one combination of fifth and sixth grade pupils, and one upper elementary cluster which included pupils of the fifth and sixth grades plus the entire seventh grade.

In addition to the regular staff, personnel were assigned from the area office to serve Scott School on a part-time basis. These included a social worker, a music teacher, and a physical education teacher. One therapeutic aide paid by state funds served the pupils of the multihandicapped class. Each child who required it received physical therapy from the trained aide for at least one hour each day. This included nine of the ten pupils in the class. The staff provided by Title I, including the lead teacher, the certified teacher, and four educational aides, functioned according to the responsibilities described in Section VII.

Two major staffing problems occurred during the school year. In December, 1972, a teacher left on maternity leave and was not replaced. A substitute teacher filled the position regularly until April, 1973. At that time the original teacher returned

to the classroom and the substitute was assigned to the certified teacher position under Title I. This position had actually opened in December, 1972, when additional Title I funds were released. Although the situation seemed to work out to the best advantage of the teachers, the Title I program was denied four months of the services of a certified teacher, and the pupils of the fifth grade were subject to two teacher changes during the year. The delay in replacing the permanent staff member and in assigning a teacher to the Title I program was at least partially attributable to misunderstandings and hold-ups in the area office. The principal had notified the area superintendent of the vacancy caused by maternity leave by the middle of January, 1973, but no replacement was forthcoming. In the case of the Title I position, which was funded in December, 1972, the area office was aware of the situation by February, 1973, after which time the principal was asked to select one of the classroom teachers for the position. Since the teacher on maternity leave was due to return to her classroom soon, it seemed feasible to place the substitute in the Title I position.

Program Planning and Inservice Training

At the beginning of the school year, a committee of teachers was selected to plan faculty meetings for professional development. The committee circulated a questionnaire to obtain ideas about the subject matter for the monthly meetings. As a result, two meetings were conducted by an area office resource specialist in reading, two were conducted by a system specialist in classroom management, one was conducted by a specialist in mathematics, and one concerned the Research and Development Pupil Achievement study. Meetings for administrative purposes were called by the principal when needed.

Seven teachers attended six different workshops or inservice training sessions during the year. Two of the second grade teachers received inservice training from the Scott-Foresman Publishing Company to become familiar with Reading Systems, the newly purchased basal reading text. The fourth grade teachers attended meetings at the area office to gain information on the use of the test results reported by the State Department of Education. Other workshops were concerned with learning disabilities, Title I, physical education, movement education, and science.

Two teachers expected to receive their master's degree's in reading by the end of the spring quarter. With their excellent educational backgrounds and in their concern for the pupils of the school, they asked and received the principal's permission to study and possibly redesign the reading program for the next year.

Staff Attitudes Toward Educational Practices

Because the school was participating in the Career Opportunities Program (COP) all teachers and aides were requested to complete the Opinionnaire On Attitudes Toward Education by H. C. Lindgren and G. M. Patton. The instrument is designed to measure attitudes toward child-centered policies and practices in education. Respondents were asked to agree or disagree with 50 statements concerned with the desirability of understanding the behavior of students, the desirability of the teacher's using authoritarian methods as a means of controlling behavior, and the desirability of subject-matter-centeredness as contrasted with learner- or child-centeredness. The attitude score was the number of positive items agreed with plus the number of negative items disagreed with, where positive items were favorable to child-centered practices. The theoretical range of scores was from zero to 50, with the highest score indicating more favorable attitudes toward child-centered policies and practices in education.

Only eight teachers and three aides responded to the questionnaire. The scores ranged from 26 to 41, yielding both a mean and a median of 35. The mean score for the teachers was 36 and the mean score for the aides was 34. Comparison to scores in other Title I schools and schools participating in COP can be found in the final COP report for 1972-73. Since the COP aides did not work in the classroom as part of an instructional team, the program's objective of more favorable attitudes on the part of COP team members cannot be fairly evaluated.

IX. ACTIVITIES

Instructional

In order to accomplish the primary goal of improved reading instruction, all teachers spent at least one hour per day teaching reading. In most cases, this time was extended to one and one-half or two hours and encompassed other language arts including spelling, grammar, and creative writing. In self-contained classrooms, pupils were assigned by reading achievement levels. Within the class, pupils were grouped again according to more defined abilities. In the cluster classrooms, also, pupils received individualized reading instruction.

There was no specific basal reading series used by all grade levels. Teachers instructed according to the series of their choice and often supplemented the instruction with outside resources. The principal and faculty of the school are attempting to organize their reading program around a specific basal text. Each year, an additional level of the Systems Series by Scott-Foresman is purchased. This year both the first and second grades employed this series.

Pupils in the Title I English-Reading program received additional reading instruction from Title I aides. This instruction took place on an individual or small-group basis for 30 to 45 minutes each day. The aides maintained constant rapport with the pupils' classroom teachers in order to coordinate lessons to the greatest advantage of the child. The lead teacher constantly monitored the work of the aides by observing and assisting them with one of their groups each day. She also held planning conferences with each aide once a week and averaged about one hour per week for inservice training.

Materials used for pupils in the Title I program varied according to the grade level or the achievement level of the pupil. In the first grade, the Peabody Rebus Materials and Starter Concept Cards provided the main source of instruction. Second and third grade pupils utilized the Specific Skills Series, the Talking Alphabet, and the Target Red Reading Program. The Plus Four Booster Program was used for pupils in grades four through seven and was supplemented by a wide variety of teacher-made games and exercises.

Under the Title I Experience Approach to Reading Program, the ten pupils of the multihandicapped class received tutorial help from seventh grade Title I pupils of a nearby elementary school. For two hours, one day each week, the tutors would work with the tutees on instructional games and exercises, primarily in the area of language arts. The teacher of the multihandicapped class provided the educational aide in charge of the tutors with information about the current activities and achievement of each pupil to allow for coordination of the subject matter. The tutors and tutees spent one weekend together at Camp Will-O-Way to promote the personal relations between the pupils and to provide mutual experiences that could be incorporated into learning activities.

Parental Involvement

The principal and faculty of Scott Elementary School recognize the importance of parental interest and involvement to the progress of the pupil. Parents were continuously urged to visit the school and the classrooms and to maintain contact with the principal and the child's teacher. The school staff did not hesitate to solicit the parents' support when problems arose with their children.

In order to encourage parent interest in the children's academic progress, the school followed a previously established policy of requiring parents to pick up a child's report card at the end of every quarter instead of sending the card home with the child. At these times, teachers remained at the school until 7:00 p.m. to talk with the parents about the pupils' school work. Parents received prior notices about the designated report card day, and were urged to set an appointment with the teacher. Most parents cooperated with this practice.

Two parents in particular often contributed their services though not on a regular basis. When they did serve, they often assisted the kindergarten teacher who was without regular aides for a morning and afternoon class totalling about 60 children.

The Parent-Teacher Association (PTA) of the school was not quite so active this year as it was in the previous year. Four meetings were held for parents only and two were held for parents and teachers. Renewed interest in PTA was sparked by an interested father toward the close of the year and a car wash and chicken dinner sale were sponsored. Proceeds were to be contributed to the fund for paving a recreational area at the school. Teachers had previously contributed to the fund by promoting periodic paper sales throughout the school year.

According to the guidelines of the Title I program, parent involvement in the program was to be promoted on both the school and the city levels. To this end, the Title I lead teacher called one meeting per month for the parents of Title I pupils. All of the meetings were held at the school except one which was held at the Hollywood Courts Apartments where many of the children resided. During the second quarter, each parent was requested to attend a conference with the lead teacher and educational aide working with his child. The parents of 28 out of 100 children attended this conference. Although this does not constitute even half of the parents, it was a tremendous improvement over the five parents who responded to the first quarter request.

One of the parents, who was selected for the Title I Parent Council as an alternate delegate to the City-Wide Advisory Council, attended two of the three city-wide meetings. This parent was also quite active in promoting the local parent council meetings and in assisting with other Title I activities.

Attendance

Although overall attendance at Scott School had been relatively good the previous year, the attendance of the very young children was generally poor. In order to improve attendance, the kindergarten teacher displayed attendance graphs for each child. Pupils could follow their own attendance and work for prizes that were distributed by the teacher.

X. EVALUATION

Research Design

In order to evaluate the specified behavioral objectives and to observe general pupil achievement, certain tests were administered. These instruments were selected under the guidelines of the compensatory programs, in accordance with the school system's testing program, and as relevant to the classroom teacher's instruction. Analysis of the test results, in response to behavioral objectives, was supplemented by additional analysis to provide further insight into the progress of the school toward its goals.

The following instruments were used for evaluation:

- A. The Metropolitan Achievement Tests (MAT) in reading, published by Harcourt, Brace, Jovanovich, Inc., copyright 1971, were administered to all Title I pupils, according to their grade level, in October and May of the school year. The gains made on the "Word Knowledge" and the "Reading Comprehension" subtests in terms of grade equivalents were calculated for grades two through seven. "Word Analysis," also a critical variable, was not measured by the posttest for these grades. In the first grade, a readiness test was administered as a pretest but was not convertible to grade equivalents so no gains could be calculated. However, posttest scores were reported.
- B. The Self-Appraisal Inventory (SAI), constructed by the Instructional Objectives Exchange, was administered at the beginning and end of the school year to Title I pupils to determine change in self-concept as it relates to peers, to family, to school, and to general self-esteem. The School Sentiment Index (SSI), constructed by the Exchange to measure attitude toward school, was also administered at the start of the year. However, it correlated at .88 with the SAI and, therefore, was eliminated to avoid overtesting the pupils.

The pretests for the primary grades were observed by the research assistant and the testers to be inappropriate and randomly answered. Therefore, primary pupils were excluded from the posttesting and pretest results were not recorded.

The means of the raw scores of the SAI for pupils of grades four through seven were submitted to a t test of dependent means to determine the statistical significance of any change. The objective required a change that was statistically significant at the .05 level.

- C. The Comprehensive Instructional Program (CIP) diagnostic tests were administered to primary pupils three times during the school year. The administration in late March, 1973, was used for evaluation of the behavioral objectives in the primary grades. The tests were developed by the local staff of CIP to test pupils' abilities in prereading and basic reading skills.

- D. The Iowa Tests of Basic Skills (ITBS) by the Houghton Mifflin Company, copyright 1971, were administered throughout the entire school system in April, 1973. Results of the reading and total math subtest were compared to subtests of the Metropolitan Achievement Tests (MAT) administered in April, 1972, after analysis by the Research and Development Division yielded high correlations between the two tests.

Additional analysis done by the Research and Development Division determined the ratio of actual pupil performance on the reading subtest, the total math subtest, and the composite score of the ITBS to predicted performance and to national norms. A regression formula that accounted for past achievement, mobility, attendance, socioeconomic status, and the pupil-teacher ratio predicted the scores on the ITBS. This predicted score was then divided by the actual score to yield a predicted achievement index. Likewise, the national norm was divided by the actual score to yield a national achievement index.

- E. For some objectives of the fourth grade classes, teacher-made tests were administered for evaluation of the objectives. Evaluation included not only the scores made by the pupils but comparison of the test items with items on standardized instruments.

Evaluation of Behavioral Objectives

A. First Grade

Objectives written for the first grade pupils were:

1. Those pupils in the top group will have completed subtests A1 through C2 of the Comprehensive Instructional Program (CIP) tests with 80 per cent accuracy by the final administration of the tests.
2. Those pupils in the second group will have completed subtests A1 through C2 of the CIP tests with 60 per cent accuracy by the final administration of the tests.

The groups for which the behavioral objectives were written were flexible reading groups which pupils passed into or out of according to their own

pace. By the end of the school year, the original composition of each group had somewhat altered although the expectancies for the groups remained the same. One teacher felt that a number of children in her class were considerably below the achievement of even the second group so their test results were calculated separately under Group III but with the same expectancies as Group II.

None of the groups exactly met the objectives that were defined for them but the test results for Groups I and II were generally acceptable with a few obviously weak areas. At least 75 per cent of Group I met their objective on 10 of the 14 subtests and 75 per cent of Group II satisfied the objective on 8 of the 14 subtests. The skills in which pupils of these groups were obviously very weak were "Hearing Similar Ending Sounds," A5, and "Sight Vocabulary," B3, and B4. The teacher's sentiments about the pupils designated in Group III proved accurate as their results indicated proficiency only in the visual matching skills of subtests A3, A4, and A8. The percentages of pupils achieving the objectives by groups are listed in Table 1.

TABLE 1
PERCENTAGE OF FIRST GRADE PUPILS BY GROUP
MEETING OBJECTIVES ON CIP TESTS

Subtest	Group I N=44	Group II N=26	Group III* N=11
A1	86	85	64
A2	75	77	27
A3	98	81	82
A4	84	89	91
A5	43	62	46
A6	80	92	64
A7	84	81	73
A8	66	62	82
B1	86	96	46
B2	82	80	55
B3	52	12	9

TABLE 1 (Cont'd)

<u>Subtest</u>	<u>Group I</u> <u>N=44</u>	<u>Group II</u> <u>N=26</u>	<u>Group III*</u> <u>N=11</u>
B4	43	16	9
C1	77	68	46
C2	75	48	27

* Group III consisted of 11 pupils from one first grade class whom the teacher felt were further behind than all the other children. Although they are separated from Group II their test results were recorded in terms of 60 per cent accuracy.

B. Second Grade

The following objectives were written for the pupils of the second grade:

1. Seventy per cent of the pupils will have completed CIP subtests A1 through A8 with 90 per cent accuracy by the third administration of the tests.
2. Eighty per cent of the pupils will have completed CIP subtests B1 through B4 with 90 per cent accuracy by the third administration of the tests.
3. Fifty per cent of the pupils will have completed CIP subtests C1 through C10 with 85 per cent accuracy by the third administration of the tests.

The objectives for the second grade were not met in their entirety but certain strengths and weaknesses were made visible (Table 2). On the A subtests of prereading skills, the objective was not met for only those subtests that necessitated discriminating between sounds in words, especially ending sounds. This was the same weakness cited in the first grade. On the B subtests, pupils identified the upper and lower case letters of the alphabet with no problem, but only 63 per cent were able to meet the objective for sight vocabulary with either picture or word cues. On the C subtests, 50 per cent of the pupils were able to complete only three of the subtests with 80 per cent accuracy. Most of the pupils did not take the subtests beyond C5, apparently because the teachers exercised their option not to test pupils on material for which they were not ready.

TABLE 2
PERCENTAGE OF SECOND GRADE PUPILS
MEETING OBJECTIVES ON CIP TESTS
N=73

<u>Subtest</u>	<u>Pupils Meeting Objectives With 90 Per Cent Correct</u>
A1	71
A2	62
A3	99
A4	95
A5	40
A6	27
A7	92
A8	89
B1	96
B2	92
B3	63
B4	63
<u>Subtest</u>	<u>Pupils Meeting Objectives With 80 Per Cent Correct</u>
C1	84
C2	71
C3	49
C4	30
C5*	26

* Very few children received subtests beyond this point.

Surprisingly, the three C subtests for which the objective was met all dealt with sounds, the area on which pupils had performed most poorly on the A subtests. It was observed that the A subtests required pupils to hear the same sound in two words while the C subtests required them to listen to one word and to point out the letter that matched the beginning or ending sound in the word. The C subtests which most pupils did not take involved syllabication, root words, and contractions. According to the second grade staff, these skills were

not stressed in the reading series that they utilized nor had they yet been focused upon in the teachers' planned program.

C. Third Grade

The objectives that were written for the three groups of the third grade were:

1. Ninety per cent of the low reading group will complete the following CIP subtests with the designated degree of accuracy:

<u>Subtests</u>	<u>Degree of Accuracy</u>
A1, A3, A4, A7, A8	100%
A2	70%
A5	50%
A6	80%
B1, B2	100%
B3	60%
B4	40%
C1, C3, C4	60%
C2	50%
C5	90%

2. Ninety per cent of the middle reading group will complete the following CIP subtests with the designated degree of accuracy:

<u>Subtests</u>	<u>Degree of Accuracy</u>
A1, A3, A4, A5, A7, A8	100%
A2, A6	85%
B1, B2	100%
B3, B4	90%
A1, C2, C5	90%
C3, C6	75%
C4, C9	60%
C7, C8	50%
C10	70%

3. Pupils in the top reading group will complete CIP subtests D1 through D2 with 75 per cent accuracy by the final administration of the test.

Pupils of the third grade performed poorly relative to the objectives, as observed in Table 3. This was especially true when considering the low degree of accuracy required on some of the subtests, namely A5, B3, B4, and C1 through C4 for the low group, and C4, C7, C8, and C9 for the middle group. On the other hand, the requirement of 100 per cent accuracy went even beyond CIP's expectations of 90 per cent. If the accuracy had been the same as that of CIP, at least 80 per cent of all the third grade pupils would have mastered all the A and B subtest skills except A5 and A6 which dealt with hearing similar endings.

Reading comprehension was the area tested by the subtests D1 and D2 which the high group of the third grade was expected to master with 75 per cent accuracy. Unfortunately, the results of D2 were not recorded on the computer printout. However, the poor results of D1 indicated that pupils would not have met the objectives on either subtest.

TABLE 3
PERCENTAGE OF THIRD GRADE PUPILS BY GROUP
MEETING OBJECTIVES ON CIP TESTS

Subtest	Low Group N=9	Middle Group N=30	High Group N=24
A1	44	46	**
A2	56	96*	**
A3	78	93*	**
A4	100*	89*	**
A5	56	18	**
A6	44	68	**
A7	67	92*	**
A8	78	88*	**
B1	78	82	**
B2	78	71	**
B3	100*	79	**
B4	100*	57	**
C1	89*	90*	**
C2	67	57	**

TABLE 3 (Cont'd)

Subtest	Low Group N=9	Middle Group N=30	High Group N=24
C3	67	80	**
C4	56	70	**
C5	67	57	**
C6	**	20	**
C7	**	63	**
C8	**	80	**
C9	**	80	**
C10	**	67	**
D1	**	**	33
D2	**	**	***

* Sufficient to meet the objective.

** No objectives were written for this subtest for this group.

*** Computer printouts did not show results of this test.

In Table 4 are the results of the CIP tests for all primary grades, evaluated according to the CIP requirements for mastery. It should be noted that the following subtests are recommended by the program for the designated reading levels:

Readiness and Pre-Primer	A1-A8, B1-B2
Primer	A1-A8, B1-B4
First Reader	A1-A8, B1-B4, C1-C3
Second Reader	B1-B4, C1-C10, D1
Third Reader	C1-C10, D1-D2

From the listed results, there appeared to be a number of pupils on all three grade levels who had not mastered all the prereading skills. This was especially true of subtests A5 and A6 where hardly a majority of pupils mastered the hearing skills. Discussion with the principal and members of the staff yielded the tentative conclusion that this failure was possibly a cultural difference observable in the tendency of low socioeconomic black children to drop the endings of words in speech. The poor performance of pupils in grades two and three on the C subtests suggested that few pupils were reading beyond the first or second reader.

TABLE 4
PERCENTAGE OF PUPILS SCORING
AT LEAST 90 PER CENT ON
CIP SUBTESTS

Subtest	First	Grades	
		Second	Third
A1 - Hearing Differences in Words	69	71	82
A2 - Hearing Similar Beginning Sounds	51	62	81
A3 - Matching Letters	85	99	90
A4 - Matching Letters	78	95	98
A5 - Hearing Similar Ending Sounds	31	40	44
A6 - Hearing Rhyming Words	51	27	63
A7 - Seeing Likenesses and Differences in Words	70	92	98
A8 - Seeing Likenesses and Differences in Words	53	89	98
B1 - Identification of Capital Letters	75	96	100
B2 - Identification of Lower Case Letters	67	92	97
B3 - Sight Vocabulary	25	63	84
B4 - Sight Vocabulary	19	63	84
C1 - Initial Sounds	45	74	94
C2 - Final Sounds	43	56	70
C3 - Initial Sounds	-	25	64
C4 - Vowel Sounds	-	12	38
C5 - Hearing Syllables	-	22	69
C6 - Syllabication	-	0	9
C7 - Finding Root Words	-	0	11
C8 - Adding Endings	-	0	11
C9 - Roots in Compounds	-	2	47
C10 - Contractions	-	6	39

D. Fourth Grade

Pupils of the fourth grade were divided into three homogeneous classes. The lowest achieving pupils were combined with some pupils of the fifth grade who were functioning at the same level. Each teacher wrote objectives for her own class based on the children's needs and achievement levels.

The teacher of the highest achievers wrote behavioral objectives based on the pupils' reading series. The pupils were grouped for more individualized instruction, composing five different groups. Some pupils were placed in the class after the start of school and were of a somewhat lower reading level. All pupils were expected to complete their books in the American Book Reading Series and to complete the accompanying test with 60 per cent accuracy. Unfortunately, some of the tests were not in stock and could not be ordered in time for administration. Therefore, the standardized reading test scores of the Iowa Tests of Basic Skills (ITBS) were compared to each pupil's level of instruction to evaluate reading achievement.

In many cases the average reading score of the group was behind the reading level of the book into which the pupils were promoted. The groups for which this was not true were the slowest group, in the Level 2-1 book, and two girls who were very advanced but reading from a Level 4-1 book (Table 5).

TABLE 5

COMPARISON OF INSTRUCTIONAL LEVEL
AND STANDARDIZED TEST SCORES FOR THE
HIGH GROUP IN GRADE FOUR

Instructional Level During 1972-73	No. of Pupils	Mean Scores	
		Vocabulary	Reading
Book 2-1	4	3.3	2.7
Book 3-1	9	3.6	3.0
Book 3-2	5	3.4	3.2
Book 4-1	8	4.2	3.7
Book 4-1 (Advanced)	2	6.0	5.4

The pupils of the class that was considered the middle group had problems with some basic skills and facts around which the teacher wrote behavioral objectives. These objectives included:

1. Pupils will be able to recognize and write basic facts of self-identification, including name, address, phone number, and parents' names.
2. Pupils will be able to recognize and write the letters of the alphabet, the numerals from one to one hundred, the days of the week, and the months of the year.
3. Pupils will be able to tell time and to record time on the face of a clock.
4. Eighty-seven per cent of the pupils will complete a teacher-made test of one, two, and three digit addition and subtraction, simple multiplication, factoring and division problems with 70 per cent accuracy.
5. Ninety per cent of the pupils will be able to recognize 95 per cent of the sight words on the Dolch Word List by the end of the school year.

All of the five objectives were met according to a checklist received from the teacher at the end of the school year. Only three out of twenty-seven pupils were not able to perform acceptably in all areas. These objectives seemed to be uncommonly low for fourth grade pupils. However, there were many pupils deficient in these very basic skills at the beginning of the year. Through almost daily drills in these areas, pupils came to perform the exercises with few problems.

The teacher of those fourth grade pupils who were considered to be the lowest achievers wrote specific behavioral objectives that covered skills in reading, English usage, and mathematics. The objective was that pupils would complete the teacher-made test for each skill with at least 80 per cent accuracy.

The specific skills tested in reading and English usage were word knowledge; consonants; long and short vowel sounds; wh and th digraphs; silent "e"; silent consonants; s, ed, and ing endings; syllables; homonyms; punctuation; and capitalization. Approximately 55 per

cent of the pupils completed the total test with at least 80 per cent accuracy. All of the children met the objective for word knowledge which was individualized to the reading series in use by each child. The strongest areas of performance seemed to be in the long and short vowel sounds of "e" and "i," in the use of silent "e" and silent consonants, in syllabication, and root words, while the weakest areas were homonyms and the short and long vowel sound of "a."

While more than half of the pupils reached the stated objectives, and almost all of the remaining pupils scored 60 or above on the skills tests, pertinent factors should be noted. Pupils in this class were assigned to three different reading levels: primer, first reader, and second reader. This indicated that pupils' reading achievement varied from first grade to mid second grade. In relation to standardized test items in the same subject matter, the items of the teacher-made test were appropriate to the first and second grade levels. The standardized test scores in the related areas of vocabulary, reading, capitalization, punctuation, and language usage were 2.7, 2.8, 2.9, 3.3 and 2.8, respectively. These facts suggest that pupils could possibly have been challenged with a higher level of work.

In mathematics, pupils were tested on both skills and concepts, including numerals, adding tens and hundreds, subtraction of tens and hundreds, calendar and clock time, and money concepts. Only six out of 17 pupils scored 80 per cent on all subtests. The areas where pupils exhibited the greatest strength were in the "100 addition facts" and the "100 subtraction facts." The weaker areas were "dollars and cents" and subtraction that involved borrowing. Generally, however, scores did not vary considerably between skills. Mean scores of all tests ranged from 71 to 84.

No testing of even simple multiplication, division, fractions, or geometry was done for the objectives. All of these concepts are included to some extent in the ITBS for even first grades. The pupils who took the fourth grade ITBS, which consisted entirely of word problems, averaged about 3.0 on both the "Concepts" and the "Problems" subtests, suggesting that other skills were taught or should have been expanded upon for these pupils.

E. Title I

The academic objectives for Title I called for the pupils to gain one month on a standardized test for each month they were in the program in word knowledge, word analysis, and reading comprehension. The Metropolitan Achievement Tests (MAT) was administered to all pupils in October and May, thereby necessitating a seven month gain to meet the objectives. Only the scores of pupils who were in the program for the entire year were considered in evaluating the objectives. Because of high mobility in the school and absences during the testing sessions, matched scores were available for only 62 per cent of the original Title I enrollment.

Generally speaking, the Title I program at Scott Elementary School was successful in meeting its academic objectives. The data in Table 6 show that six of the seven grades increased their mean score on word knowledge and reading by at least seven months or, as in the first grade, approached grade level by the end of the year. Furthermore, a high percentage of the individual pairs of scores showed at least seven months gain. Only the third grade did not come close to meeting the objectives.

TABLE 6
RESULTS OF STANDARDIZED READING TESTS
FOR TITLE I PUPILS

Grade	No. of Pupils	Word Knowledge Subtest		ITBS Score Post	Per Cent Gaining At Least 7 Months on MAT
		MAT Mean Scores Pre	MAT Mean Scores Post		
1	8	-	1.9	0.9	-
2	16	1.3	2.3	1.7	81.3
3	16	1.9	2.3	2.2	12.5
4	9	1.9	3.0	2.8	66.7
5	5	3.1	3.8	3.5	60.0
6	5	2.3	4.5	3.3	80.0
7	3	2.9	3.6	4.4	67.0

TABLE 6 (Cont'd)

Grade	No. of Pupils	Reading Comprehension Subtest		ITBS Score Post	Per Cent Gaining At Least 7 Months on MAT
		MAT Mean Pre	MAT Mean Post		
1	8	-	1.6	1.4	-
2	16	1.2	2.3	1.5	81.3
3	16	1.8	2.0	2.3	18.8
4	9	1.6	2.7	2.3	22.2
5	5	2.0	4.1	3.6	100.0
6	5	3.3	4.1	4.1	80.0
7	3	2.9	3.9	5.0	33.3

To further verify the MAT scores, the means of the posttest were compared to the means of the Iowa Tests of Basic Skills (ITBS) administered to the pupils one month prior to the MAT. In about half the cases the means of the two tests were within four months of each other. Otherwise ITBS scores were usually lower than MAT scores. Furthermore, the lead teacher provided data from diagnostic tests to show the increase in the number of Title I pupils who had mastered specific skills between September and March. The data for grades one, two, and three appear in Table 7. Since the third grade was the only grade not to meet the objective for the standardized test, their scores were of special interest. The data indicated that, except for skills in distinguishing ending sounds in words, almost all pupils in the third grade mastered the readiness skills, the alphabet and sight words by March, 1973. Most of the pupils did not master the decoding skills of the C subtests at that time. On the D subtests which dealt with reading comprehension, only three out of eighteen pupils were able to complete the tests with even 50 per cent accuracy in March, 1973. Since the gains that were made by the third grade pupils seemed to be in the area of readiness and beginning reading skills, the gains quite possibly would not show up on standardized tests of comprehension. The slight gains in decoding skills might also explain the failure of pupils to make substantial gains in word knowledge on the standardized tests.

TABLE 7

PERCENTAGE OF TITLE I PUPILS BY GRADE
ACHIEVING 90 PER CENT ACCURACY ON CIP TESTS
IN SEPTEMBER AND MARCH

	<u>First</u>		<u>Second</u>		<u>Third</u>	
	<u>September</u>	<u>March</u>	<u>September</u>	<u>March</u>	<u>September</u>	<u>March</u>
A1	10	54	18	68	60	95
A2	0	50	10	55	42	77
A3	28	73	71	100	75	95
A4	10	81	65	86	90	95
A5	0	50	10	41	19	41
A6	0	41	9	45	40	59
A7	5	67	55	86	90	95
A8	10	41	45	77	75	95
B1	10	71	26	100	90	100
B2	0	54	60	95	81	100
B3	0	5	0	37	57	100
B4	0	14	0	47	35	90
C1	0	15	30	77	67	95
C2	0	20	20	73	33	67
C3	-	-	5	30	14	55
C4	-	-	0	10	10	32
C5	-	-	5	20	19	67
C6	-	-	-	-	0	4
C7	-	-	-	-	0	14
C8	-	-	-	-	14	14
C9	-	-	-	-	19	50
C10	-	-	-	-	0	42

In the affective areas, the Title I program aimed to improve pupils' attitudes and self-concepts. The Self-Appraisal Inventory (SAI), described under Research Design in this section, was used to monitor any change in pupils of grades four through seven. A t test of means between the pretest and posttest for matched scores did not yield a significant difference at the .05 level for any of the four subtests (peer, family, school, and

general) or for the total (Table 8). Although this particular instrument detected no change in self-image or in attitude, the success of the Title I pupils in meeting the academic objectives suggests that self-concept might now improve as a result of their academic success.

TABLE 8

COMPARISON OF PRETEST AND POSTTEST
SCORES OF THE SELF-APPRAISAL INVENTORY
FOR TITLE I PUPILS* IN
GRADES FOUR THROUGH SEVEN

Subtest	Mean Score		t-ratio
	Pre	Post	
Peer	10.2	12.2	1.88
Family	13.1	13.6	0.43
School	11.9	13.3	1.02
General	12.5	13.6	1.20
Total	47.7	52.7	1.37

*Matched Scores Only.

F. Career Opportunities Program

Most of the objectives defined for Career Opportunities Program (COP) were based on comparisons to similar measures taken in schools without COP aides. Evaluation of these objectives can be found in the 1972-73 final report for that program.

The objective which required pupils taught by COP aides to increase achievement by one grade level annually was evaluated through the Title I program. As discussed under Part E of this section, Title I pupils in six of the seven grade levels assisted by COP aides increased their standardized reading scores by seven months or at a rate of one year's gain for each year of instruction. Therefore, at Scott Elementary School, this objective was met.

Analysis of Standardized Test Scores

Behavioral objectives were not written for grades five through seven for evaluation in the school report. However, standardized test scores were available for those grades along with the scores for grades one through four. Various analyses and comparisons were made to indicate not only current standings but longitudinal progress as well. As the main focus of both the general and the compensatory programs, reading was the subject area of analysis.

The reading comprehension scores of the Iowa Tests of Basic Skills (ITBS) for grades one through seven averaged from 1.3 years to 3.3 years behind grade level placement or national norms. Higher grades generally scored further behind their grade placement. Disturbingly small differences were found between some of the succeeding grade levels: first grade scored five months higher than second grade, third grade was just two months lower than fourth grade, and the sixth grade was one month higher than the seventh grade. Comparing these scores to standardized scores of the three previous years, most grade levels have remained steady or have fallen (Table 9). The second grade showed cause for special concern since, in the last two years, second grade achievement was lower than the same group's first grade achievement. The second grade teachers had exerted considerable effort in the teaching of reading. For the past two years they have had to deal with an open cluster situation which was new to them and to the children, possibly contributing some detrimental effects. Another factor that should be given consideration is that the mean standardized test scores of the first grade were somewhat inflated by the exceptional performance of one class. However, the pupils did not perform comparably in their second year to raise the overall mean for the second grade.

TABLE 9

COMPARISON OF STANDARDIZED
TEST SCORES* IN READING COMPREHENSION
IN SPRING OF THREE SUCCESSIVE YEARS

<u>Grade</u>	<u>MAT 1970-71</u>	<u>MAT 1971-72</u>	<u>ITBS 1972-73</u>
1	1.6	1.6	1.9
2	1.8	1.4	1.4
3	2.5	2.0	2.5
4	3.4	3.0	2.7
5	3.8	3.8	3.9
6	4.2	3.8	4.4
7	5.1	4.7	4.3

* Includes all pupils who took the test each year.

Since the pupils were loosely grouped by reading achievement within each grade level, the mean scores of each grade section were observed for differences and for their contribution to the mean. These scores for reading comprehension are listed in Table 10. Section numbers were assigned randomly within the grade level and do not correspond to achievement level. Generally, the scores verified the homogeneity of the groups, but in grades one and three there were sections that could not be differentiated. It was also discovered that in the fourth grade the lowest scoring section was actually regarded as the middle group in achievement. Recalling the behavioral objectives for that group, it was noted that they involved very basic skills generally mastered before the fourth grade. The principal noted that many pupils in that section of the fourth grade had considerable problems at home and poor self-concepts and attitudes toward school. Perhaps additional consideration should be given to the method of grouping to involve some of these affective factors.

TABLE 10

IOWA TESTS OF BASIC SKILLS READING SCORES
FOR EACH SECTION OF EACH GRADE

		Section			
		One	Two	Three	Four
Grade	1	1.4	1.4	2.9	---
	2	1.5	1.3	1.7	---
	3	2.5	2.5	3.1	---
	4	3.5	2.4	2.9	---
	5	3.1	4.9	3.8	3.5
	6	4.4	4.2	4.8	---
	7	5.0	4.1	---	---

The scores of the ITBS are related to norms that are based on the "average" child. The socioeconomic background and past achievement records of the Scott School pupils indicated that, in these aspects, they cannot be considered "average." In order to evaluate the pupils' achievement without penalizing them for these factors, their tests were compared not only to the scores of the "average" child, but also to scores that were predicted for them on the basis of their past achievement, socioeconomic status, attendance, mobility, and the pupil-teacher ratio. This comparison yielded the predicted achievement index or the ratio of the predicted score to the actual score. An index of 98 or above was considered to be acceptable. Comparison to the average, or the national norm, yielded a national achievement index, with a score of 90 or above being acceptable.

The results of the achievement study for Scott School are listed in Table 11. The third, fifth and sixth grades scored as predicted, showing predicted achievement indices of at least 98 on the reading comprehension subtests of the ITBS. The fourth grade did not reach its predicted score but was only one month behind it. The indices for the second and seventh grades were very low and caused the average predicted achievement index for the school to be less than 98. The average national achievement index for reading was 60. In other words, the pupils scored sixty per cent of the national norm.

TABLE 11

PREDICTED AND NATIONAL ACHIEVEMENT INDICES
 THE IOWA TESTS OF BASIC SKILLS, APRIL 1973

Grade	Grade Equivalent Score			Summary Achievement Indices	
	Actual	Predicted	National Norm	Predicted	National
Reading Test Data					
2	1.4	1.9	2.7	73	51
3	2.5	2.2	3.8	111	66
4	2.7	2.8	4.7	95	57
5	3.9	3.7	5.7	104	68
6	4.4	4.4	6.7	99	65
7	4.3	4.9	7.6	86	56
			AVERAGE	94	60
Mathematics Test Data					
2	2.0	2.0	2.6	98	77
3	2.4	2.4	3.7	100	65
4	3.0	3.1	4.7	98	64
5	4.1	4.0	5.6	101	72
6	4.4	4.8	6.6	91	66
7	4.9	5.4	7.6	91	64
			AVERAGE	96	68
Composite Test Data					
2	1.6	2.1	2.6	77	60
3	2.4	2.4	3.7	99	64
4	3.1	3.0	4.7	102	66
5	4.0	3.9	5.7	101	70
6	4.2	4.7	6.7	90	63
7	4.8	5.2	7.6	92	63
			AVERAGE	93	64

In mathematics, the second through fifth grades scored as predicted, but the average predicted achievement index for the school was not within the acceptable range. Both the actual and the predicted scores were somewhat higher in mathematics than in reading, particularly in grades two and seven. None of the grades approached an acceptable level when relating the scores to the national norms.

When the achievement indices formulas were applied to the composite scores of the ITBS, grades three, four, and five had predicted achievement indices greater than 98. These are the same grades which were housed in self-contained units except for part of the fifth grade. Grades two, six and seven, which did not meet their predictions, utilized the cluster classrooms. Obviously, this factor did not account for all the difference but it is a factor worthy of consideration in future planning.

XI. COST ANALYSIS

Expenditures of both general and compensatory funds were calculated to determine the relationship between program costs and pupil achievement as measured by the predicted achievement index. From general funds, approximately \$800 per pupil was spent for both salary and nonsalary expenses according to the General Funds Report of June 1973. In grades two through six where the Title I program operated, \$75 per pupil was expended. Title II contributed \$5.00 per child for library books, bringing the total per pupil cost in compensatory funds to approximately \$80. Compensatory funds data were taken from the Trust and Agency Report of June, 1973. Dividing the per pupil expenditures by the predicted achievement indices for each grade level from two through six yielded the cost per unit of the index, i.e., the amount of money expended for each child to achieve one unit of the predicted achievement index. The cost ranged from \$7.85 to \$10.39 for general funds and from \$0.78 to \$1.04 for special funds. Since the per pupil cost was the same for every grade level, the difference in cost per unit of the index was the result of different predicted achievement indices. From this data, as presented in Table 12, the conclusion was drawn that expenditures seemed generally unrelated to pupil achievement as measured by the predicted achievement index.

TABLE 12

ANALYSIS OF EXPENDITURES OF GENERAL AND COMPENSATORY
FUNDS AS RELATED TO THE PUPIL ACHIEVEMENT INDEX

	Grades								Average
	Kdg.	First	Second	Third	Fourth	Fifth	Sixth	Seventh	
Average Daily Attendance	47	77	72	63	70	59	61	44	
Per Pupil Cost									
A. General Funds									
1. Regular									
a. Salary	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745
b. Nonsalary	55	55	55	55	55	55	55	55	55
c. Total	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800	\$ 800
2. CIP									
a. Salary	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-
b. Nonsalary	-0-	1	1	1	1	1	1	1	1
c. Total	\$ -0-	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1	\$ 1
3. Total General Funds									
a. Salary	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745	\$ 745
b. Nonsalary	55	56	56	56	56	56	56	56	56
c. Total	\$ 800	\$ 801	\$ 801	\$ 801	\$ 801	\$ 801	\$ 801	\$ 801	\$ 801
B. Special Funds									
1. Title I									
a. Salary	\$ -0-	\$ 74	\$ 74	\$ 74	\$ 74	\$ 74	\$ 74	\$ 74	\$ 67
b. Nonsalary	-0-	1	1	1	1	1	1	1	1
c. Total	\$ -0-	\$ 75	\$ 75	\$ 75	\$ 75	\$ 75	\$ 75	\$ 75	\$ 68
2. Title II									
a. Salary	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-	\$ -0-
b. Nonsalary	5	5	5	5	5	5	5	5	5
c. Total	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5
3. Total Special Funds									
a. Salary	\$ -0-	\$ 74	\$ 74	\$ 74	\$ 74	\$ 74	\$ 74	\$ 74	\$ 67
b. Nonsalary	5	6	6	6	6	6	6	6	6
c. Total	\$ 5	\$ 80	\$ 80	\$ 80	\$ 80	\$ 80	\$ 80	\$ 80	\$ 73
C. Total Per Pupil Cost*									
a. Salary	\$ 745	\$ 819	\$ 819	\$ 819	\$ 819	\$ 819	\$ 819	\$ 819	\$ 812
b. Nonsalary	60	61	61	61	61	61	61	61	61
c. Total	\$ 805	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 873
Predicted Achievement Index	---	---	77	99	102	101	90	92	94
Cost Per Unit of Achievement Index									
A. General Funds	\$ ---	\$ ---	\$ 10.39	\$ 8.09	\$ 7.85	\$ 7.93	\$ 8.90	\$ 8.70	\$ 8.67
B. Special Funds	---	---	1.04	0.81	0.78	0.79	0.89	0.87	0.87
C. Total	\$ ---	\$ ---	\$ 11.43	\$ 8.90	\$ 8.63	\$ 8.72	\$ 9.79	\$ 9.57	\$ 9.54

*Costs are subject to rounding errors.

XII. CONCLUSIONS

Data presented in Section X, Evaluation, prompted the following conclusions:

- A. Pupils of grades one, two, and three made acceptable progress toward mastering pre reading skills as measured by Comprehensive Instructional Program (CIP) tests, A1 through B4.
- B. Pupils of grades two and three did not master decoding skills as predicted by their teachers and measured by the C subtests of the Comprehensive Instructional Program (CIP) tests.
- C. In fourth grade classes where data were available most pupils met the behavioral objectives set by their teachers.
- D. The homogeneous grouping in grade four was not always evident in test results or in the behavioral objectives.
- E. Pupil participants in the Title I program generally met the behavioral objective of a month's gain for each month of instruction in reading and word knowledge.
- F. The Self-Appraisal Inventory (SAI) indicated no change in self-concept of Title I participants in grades four through seven.
- G. The participation of Career Opportunities Program aides in the Title I program may have contributed to the achievement of academic objectives by the Title I pupils.
- H. When accounting for past achievement, socioeconomic status, attendance, mobility, and pupil-teacher ratio, only pupils of grades three through six performed as predicted on the reading subtest of the Iowa Tests of Basic Skills (ITBS).
- I. When accounting for the aforementioned factors, pupils of grades two through five performed as expected on the mathematics subtests of the ITBS.

- J. Test data for the past three years showed that achievement by grade level had generally remained at the same level except in grades two, four and seven where mean scores have fallen by four, seven, and eight months respectively.
- K. The existence of the Comprehensive Instructional Program in the primary grades for the past three years has done little to improve the reading competencies of the pupils in Scott Elementary School.
- L. None of the grades produced mean scores in reading or in mathematics that were acceptable in relation to national norms.
- M. The expenditure of funds in both the general and the compensatory programs did not correlate significantly with the achievement of pupils as measured by the predicted achievement index.

XIII. RECOMMENDATIONS

The following recommendations were made, in view of the data and observations recorded in this report, as suggestions which may contribute to the efforts of the faculty and the overall goals of the program.

- A. If possible, money should be expended next year to purchase all of the remaining levels of the reading series which will serve as the basal text for all grades.
- B. Instruments used for placement of pupils in achievement levels should be uniform for the general and the compensatory programs.
- C. More stress should be put on reading readiness skills at the kindergarten level. Evaluation of the primary grades should include the kindergarten teacher so she can become aware of where the weaknesses lie.
- D. In addition to class and grade-level objectives, the faculty should set school-wide objectives that promote unity and cooperation among the staff.

E. Efforts should be made to improve communication between the Title I staff and the classroom teachers so that a sense of "team effort" will prevail.

The principal and the faculty are further encouraged to follow through with their own recently devised plans to better coordinate the resource and compensatory facilities such as the Title I program, the EMR resource room, and the Communication Skills Laboratory, and to coordinate the entire reading program through designated members of the faculty. Their willingness to make organizational and operational changes demonstrates a commendable concern for children and their education.